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Additional submitted attachment is included below.

Submitted Via CEC E-Comment Portal

April 30, 2024

California Energy Commission
Docket Unit, MS-4
Docket No. 23-SB-100
715 P Street
Sacramento, CA 95814

RE: Comments of the California Biomass Energy Alliance on the 2025 Senate Bill 100 Report Non-Energy Benefits Workshop
DOCKET #: 23-SB-100

The California Biomass Energy Alliance (CBEA) is pleased to submit the following comments on the April 16, 2024, 2025 Senate Bill 100 Report Non-Energy Benefits Workshop introducing approaches to incorporating non-energy benefits and social costs of potential resource scenarios into the SB 100 analysis. CBEA supported SB 100 and supports the process of moving the state to a zero-carbon future. CBEA wants to emphasize that while the California utilities are easily meeting their renewable mandates at the present time, getting to the 2045 targets will take a considerably more concerted effort, both with regard to other segments of the electricity market, and other sectors of the economy, including transportation and buildings. Considering that, we advise caution as we proceed with the nonenergy benefits (NEBs) analysis. Workshop presentations, especially those by the Center for Biological Diversity, reveal how NEBs can be not only subjective, but frankly manipulated and misused. To that end, we provide the following comments for your consideration covering the topics of air quality, management of California's excess wood waste, and forest health.

Biomass energy is unique among energy sources in providing valuable ancillary environmental services in addition to renewable energy. Those services are directly connected to the diversion of residue and waste resources from conventional disposal practices, such as open burning and landfill burial, to energy production. Biomass power production is also a valuable tool in efforts to reduce wildfire risks in this vulnerable state by providing a safe and beneficial use outlet for the residues of forest treatment operations. Securing these valuable ancillary services, which fall squarely into the category of NEBs, well into the future needs to be an important component of California environmental and energy policy.

The use of waste and residue forms of biomass for energy production has long been recognized as being carbon neutral or better on a net basis (energy production vs. conventional disposal alternatives) by domestic and international organizations. In California, the entity charged with the administration of the

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state's Cap-and-Trade Program, CARB, has determined that biomass energy producers only have to obtain emissions permits for their production of fossil-carbon emissions, not for their production of biogenic-carbon emissions, which are reported separately. The CPUC's IRP proceeding adopts that treatment in its modeling analytics. We note that this treatment is highly conservative because it fails to give credit to biomass energy in cases where there are documented reductions in net greenhouse-gas (GHG) emissions.

Solid biomass fuels are materials that are diverted primarily from three kinds of disposal or disposition fates: open burning, landfill disposal, and accumulation as overgrowth material in the state's forests. In addition to providing reliable, schedulable renewable electricity, which is increasingly important on a grid increasingly dependent on intermittent power resources, biomass power generation provides the following reuse benefits to Californians for these lowest market value wood materials:

- Biomass helps local governments meet landfill reduction mandates by diverting almost 3.5 million tons of low value wood waste annually for fuel.
- Biomass helps local air districts comply with federal air-quality standards by reducing emissions of Criteria Pollutants by preventing open burning of 1.5 million tons of agricultural and forestry residues each year. Biomass plants cut criteria pollutant emissions by up to 98% compared with open burning.
- Biomass promotes healthier forests by reducing the cost of performing fuels reduction and other forestry-cleanup operations. Almost 100,000 acres of forest land was treated in California in 2022 because of the market for biomass fuels, which has been bolstered by the state's BioRAM program.
- Biomass helps California meet mandated GHG reductions by diverting wood into fuel that provides a net reduction of over 3.2 million tons of biogenic GHG emissions per year. An additional 2.2 million tons of avoided GHG emissions per year results from the biomass industry's displacement of fossil-fueled generation by the electric utilities. These reductions should be considered in the analysis of NEBs.

California's biomass power industry is also providing living wage jobs, often in disadvantaged communities, and growing the green economy. Unlike other renewable technologies, biomass generators have to pay to collect, process and transport its fuels, with the result that they are more labor intensive. The biomass industry employs about 750 direct jobs at the existing operating facilities, and 1,200 to 1,500 dedicated indirect jobs in the fuel supply infrastructure. Most of these jobs are in rural areas of the state.

Healthier Air

California's fleet of biomass power plants are located in rural communities, in close proximity to the fuel, such as in agriculture and forested areas. For those that are in the Central Valley, in or around an EJ community, emissions are tightly controlled. Oversight of all biomass plant emissions is governed by

state and local regulations and generally administered by local air pollution control districts, which are also the issuing authorities for plant operating permits (Title V). The Title V Permit requires the installation of Continuous Emissions Monitor (CEMs) for O2, CO, NOx and Opacity. Continuously monitoring these critical parameters ensures consistent and efficient combustion in the boilers. Also included are fuel quality requirements, notifications requirements, regular quality assurance and emissions monitoring reports to the local air district, annual certification of compliance and regular inspections by the local air district. The US EPA has oversight review of Title V Permits. Both the local air district and the US EPA have permitting authority over significant changes in equipment or methods of operation. The environmental regulatory oversight for biomass power plants is extensive, and it affects all aspects of facility operations. Air emissions are no exception.

Combustion Should Not Be Used As A Substitute Term for Fossil Fuel

CBEA objects to the blanket reference to the term "combustion" in the workshop documents. Combustion is a tool, like any other energy conversion process. If the aim is to reduce the use of fossil fuels as an energy source, then the text should target fossil fuels directly. Using the term "combustion" pulls bioenergy resources into the discussion, when in fact the aim of the policy should be to encourage the use of renewable energy sources, including biomass, not discourage its use because it employs the same energy-conversion technology that is used for fossil fuels. We note that a substantial fraction of the biomass fuel used in California would otherwise be open burned in the absence of beneficial use of the material as fuel. Biomass combustion in an industrial boiler substitutes dirty open burning of these materials for clean combustion in a controlled boiler. The question should be whether a given energy source is net carbon-neutral or better, not whether combustion has been used in the course of its generation.

Healthy Forests

Climate change intensifies extreme weather events. In the last 10 years, the combination of increased fuel-loading vegetation from the winter storms, millions of dead trees from a drought-induced bark beetle infestation, and extreme winds have triggered the most destructive wildfires in the state's history. As GHG emissions continue to accumulate and climate disruption grows, such catastrophic events will become more and more frequent.

As highlighted in the California Forest Carbon Plan, the state's biomass industry supports efforts to reduce GHG and criteria air pollutant emissions and provides economic incentives to perform forest restoration work. With an estimated 10 billion board feet of dead and dying trees within the southern Sierra Nevada, the equivalent of about 50 million bone dry tons of material that needs to be removed, existing bioenergy facilities are responding, and are operating at capacity in taking as much material as possible since there are few other available markets.

Bioenergy production is the only near-term option to manage California's dead and dying trees and avoid open pile burning and accumulation in the forest. These drought-killed trees present an extreme fire and safety hazard which, in many areas, are being mitigated by bringing this material to biomass facilities. A further benefit of diverting this material to biomass energy production is the avoidance of significant black carbon emissions during wildfires.

Reducing Short-Lived Climate Super Pollutants

In 2016 SB 1383 (Lara) [Chapter 395, Statutes of 2016] was signed into law setting methane emissions reduction targets for California in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP). Organics, such as wood waste, make up half of what Californians dump in landfills. According to CalRecycle, which is charged with implementation of SB 1383, organics produce short-lived climate super pollutants, and reducing them will have the fastest impact on the climate crisis. That is why biomass energy is part of the SB 1383 regulatory effort. Biomass energy is recognized as a solution to organics diversion to a beneficial reuse product, renewable electricity, and qualifies as a procurement technology strategy for local governments seeking to meet these organics diversion rules.

Substituting energy production for open burning of biomass residues also reduces net emissions of methane, although not as dramatically as diverting organics from landfill disposal. Biomass combustion in controlled boilers produces almost no emissions of methane. Pile burning of biomass produces enough emissions of methane, particularly from combustion in areas of the fire that are smoldering, that the overall greenhouse potency of the emissions is at least twice as great as those of power production at the time of the emissions.

When it comes to fighting against the negative consequences of climate change biomass energy production is part of the solution, not part of the problem, and it is widely recognized as being part of the solution by a variety of California policies that depend on a healthy California biomass industry to assist in meeting a range of environmental objectives, including wildfire risk mitigation, elimination of open burning of agricultural and forestry residues, and reducing the emissions of short-lived climate super pollutants. We urge the joint agencies to take these state policies and supporting data into account in your NEB analysis.

Thank you for your kind attention and consideration of these comment.

Sincerely,
California Biomass Energy Alliance (CBEA)

Julee Malinowski-Ball, Executive Director